



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Masterpiece Building Products, LLC.
1005 North Krome Avenue, Suite 123
Homestead, FL. 33030

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Santa Ana Mission Tiles, Toledo, Castilla, Marbella, Antigua Roof Tile

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 11.

The submitted documentation was reviewed by Alex Tigera.



NOA No.: 13-0923.06
Expiration Date: 02/06/19
Approval Date: 02/06/14
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ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: Roofing Tiles
Material: Clay
Deck Type: Wood

1. SCOPE

This approves a system using **Santa Ana Mission Tiles, Antigua, Toledo, Castilla and Marbella**, as manufactured by **Arcillas Santa Ana SA** in **Cucuta, Norte de Santander, Colombia** and distributed by **Masterpiece Building Products, LLC.** and described in Section 2 of this Notice of Acceptance. For locations where the pressure requirements, as determined by applicable Building Code does not exceed the design pressure values obtained by calculations in compliance with RAS 127 using the values listed in section 4 herein. The attachment calculations shall be done as a moment based system.

2. PRODUCT DESCRIPTION

<u>Manufactured by</u> <u>Applicant</u>	<u>Dimensions</u>	<u>Test</u> <u>Specifications</u>	<u>Product</u> <u>Description</u>
Santa Ana Mission Tile – Toledo	l = 18" w = 6.5" – 5.5" min. ½" thick	ASTM C 1167	High profile, two-piece, barrel, clay roof tile equipped with one nail hole. For direct deck nail-on, mortar set or adhesive set applications.
Santa Ana Mission Tile – Castilla	l = 18" w = 8" – 6.5" min. ½" thick	ASTM C 1167	High profile extruded machine-made clay tiles equipped with one nail hole. For direct deck adhesive set applications.
Santa Ana Mission Tile – Marbella	l = 16" w = 8" min. ½" thick	ASTM C 1167	High profile, two-piece, barrel, clay roof tile equipped with one nail hole. For direct deck nail-on, mortar set or adhesive set applications.
Santa Ana Mission Tile - Antigua	l = 17.5" w = 7.5" min. ½" thick	ASTM C 1167	High profile, hand-made cap clay tile for use with Castilla pan and Toledo pan tiles. For direct adhesive set applications.
Trim Pieces	l = varies w = varies varying thickness	ASTM C 1167	Accessory trim, clay roof pieces for use at hips, rakes, ridges and valley terminations. Manufactured for each tile profile.

2.1 MANUFACTURING LOCATION

2.1.1 Cucuta, Colombia

2.2 EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
Redland Technologies	7161-03	Static Uplift Testing	Dec. 1991
	Appendix III	TAS 102 & TAS 102(A)	
The Center for Applied Engineering, Inc.	94-084	Static Uplift Testing	May 1994
		TAS 101 (Mortar Set)	
The Center for Applied Engineering, Inc.	94-060A	Static Uplift Testing	March, 1994
		TAS 101 (Adhesive Set)	
The Center for Applied Engineering, Inc.	25-7183-6	Static Uplift Testing	Feb. 1995
		TAS 102	
		(2 Quik-Drive Screws, Direct Deck)	
The Center for Applied Engineering, Inc.	25-7183-5	Static Uplift Testing	Feb. 1995
		TAS 102	
		(2 Quik-Drive Screws, Battens)	
The Center for Applied Engineering, Inc.	25-7214-1	Static Uplift Testing	March, 1995
		TAS 102	
		(1 Quik-Drive Screw, Direct Deck)	
The Center for Applied Engineering, Inc.	25-7214-5	Static Uplift Testing	March, 1995
		TAS 102	
		(1 Quik-Drive Screw, Battens)	
Redland Technologies	7161-03	Wind Tunnel Testing	Dec. 1991
	Appendix II	TAS 108 (Nail-On)	
Redland Technologies	Letter Dated Aug. 1, 1994	Wind Tunnel Testing	Aug. 1994
		TAS 108 (Nail-On)	
Redland Technologies	P0631-01	Wind Tunnel Testing	July 1994
		TAS 108 (Mortar Set)	
Redland Technologies	P0402	Withdrawal Resistance	Sept. 1993
		Testing of screw vs. smooth shank nails	
The Center for Applied Engineering, Inc.	Project No. 307025	Wind Driven Rain	Oct. 1994
	Test #MDC-77	TAS 100	
Atlanta Testing & Engineering, Inc.	R1.894	Physical Properties	Aug. 1994
	R2.894	TAS 112	
	R3.894		
Celotex Corporation	520109-1	Static Uplift Testing	Dec. 1998
Testing Service	520111-4	TAS 101	
Celotex Corporation	520191-1	Static Uplift Testing	March 1999
Testing Service		TAS 101	

Walker Engineering, Inc.	Evaluation Calculations	25-7094	February 1996
Walker Engineering, Inc.	Evaluation Calculations	25-7496	April 1996
Walker Engineering, Inc.	Evaluation Calculations	25-7584	December 1996
		25-7804b-8	
		25-7804-4 & 5	
		25-7848-6	
Walker Engineering, Inc.	Evaluation Calculations	25-7183	March 1995
Walker Engineering, Inc.	Evaluation Calculations	Aerodynamic Multipliers	January 2007
Walker Engineering, Inc.	Calculations	Two Patty Adhesive Set System	April 1999
Walker Engineering, Inc.	Evaluation Calculations	Restoring Moments Due to Gravity	February 2007
Nutting Engineers	130	TAS 112	January 2007
American Test Lab of South Florida	RT0726.01-13	ASTM C 1167	08/02/13
	RT0624.01-13	ASTM C 1167	07/01/13
	RT0718.01-13	ASTM C 1167	07/26/13
	RT0718.03-13	ASTM C 1167	08/22/13
	RT0718.02-13	ASTM C 1167	08/22/13

3. LIMITATIONS

- 3.1 Fire classification is not part of this acceptance.
- 3.2 For mortar or adhesive set tile applications, a static field uplift test shall be performed in accordance with TAS 106.
- 3.3 Applicant shall retain the services of a Miami-Dade County Certified Laboratory to perform quarterly test in accordance with TAS 112, appendix 'A'. Such testing shall be submitted to the Building Code Compliance Office for review.
- 3.4 Minimum underlayments shall be in compliance with the applicable Roofing Applications Standards listed section 4.1 herein.
- 3.5 30/90 hot mopped underlayment applications may be installed perpendicular to the roof slope unless stated otherwise by the underlayment material manufacturers published literature.
- 3.6 This acceptance is for wood deck applications. Minimum deck requirements shall be in compliance with the applicable Building Code.



4. INSTALLATION

4.1 Masterpiece Tile Company Inc.'s Santa Ana Mission Tile – Toledo, Castilla, and Marbella Roof Tile and its components shall be installed in strict compliance with Roofing Application Standard RAS 118, RAS 119, and RAS 120.

4.2 Data For Attachment Calculations

Table 1: Average Weight (W) and Dimensions (l x w)

Tile Profile	Weight-W (lbf)	Length-l (ft)	Width-w (ft)
Santa Ana Mission Tile – Toledo Roof Tile	4.0	1.5	0.54
Santa Ana Mission Tile – Castilla Roof Tile	5.3	1.5	0.64
Santa Ana Mission Tile – Marbella Roof Tile	6.0	1.5	0.66
Santa Ana Mission Tile – Antigua Cap Tile	5.4	1.42	0.625

Table 2: Aerodynamic Multipliers - λ (ft³)

Tile Profile	λ (ft ³) Direct Deck Application
Santa Ana Mission Tile – Toledo Roof Tile	0.190
Santa Ana Mission Tile – Castilla Roof Tile	0.234
Santa Ana Mission Tile – Marbella Roof Tile	0.191
Santa Ana Mission Tile - Castilla Pan / Antigua Cap	0.190
Santa Ana Mission Tile - Toledo Pan / Antigua Cap	0.190

Table 3: Restoring Moments due to Gravity - M_g (ft-lbf)

Tile Profile	2":12"	3":12"	4":12"	5":12"	6":12"	7":12" or greater
	Direct Deck	Direct Deck	Direct Deck	Direct Deck	Direct Deck	Direct Deck
Toledo Roof Tile	2.88	2.84	2.78	2.72	2.64	2.56
Castilla Roof Tile	3.77	3.71	3.64	3.55	3.45	3.34
Marbella Roof Tile	4.24	4.18	4.10	4.00	3.89	3.77
Castilla Pan / Antigua Cap	3.98	3.92	3.84	3.75	3.65	3.55
Toledo Pan / Antigua Cap	3.79	3.74	3.67	3.59	3.50	3.40

**Table 4: Attachment Resistance Expressed as a Moment - M_f (ft-lbf)
for Nail-On Systems**

Tile Profile	Fastener Type	Direct Deck (min 15/32" plywood)	Direct Deck (min. 19/32" plywood)
Santa Ana Mission Tile – Toledo, Castilla, and Marbella Roof Tile only.	2-10d Ring Shank Nails	28.6	41.2
	1-10d Smooth or Screw Shank Nail	5.1	6.8
	2-10d Smooth or Screw Shank Nails	6.9	9.2
	1 .#8 Screw	20.7	20.7
	2 .#8 Screws	43.2	43.2
	1-10d Smooth or Screw Shank Nail (Field Clip)	23.1	23.1
	1-10d Smooth or Screw Shank Nail (Eave Clip)	29.3	29.3
	2-10d Smooth or Screw Shank Nails (Field Clip)	27.6	27.6
	2-10d Smooth or Screw Shank Nails (Eave Clip)	38.1	38.1

**Table 5(A): Attachment Resistance Expressed as a Moment M_f (ft-lbf)
for Single Patty Adhesive Set Systems**

Tile Profile	Tile Application	Minimum Attachment Resistance
Santa Ana Mission Tile – Toledo, Castilla, and Marbella Roof Tile only.	3M™ 2-Component Foam Roof Tile Adhesive AH-160	177 ²
	TileBond Roof Tile Adhesive	115 ³

1 See manufactures component approval for installation requirements.

2 Santa Ana Mission Tile Pan installed with a 23 grams paddy.
Santa Ana Mission Tile Cap installed with a 11.5 gram paddy on each edge of the tile.

3 Santa Ana Mission Tile Pan installed with a 11.8 grams paddy.
Santa Ana Mission Tile Cap installed with a 11.6 gram paddy on each edge of the tile.

**Table 5(B): Attachment Resistance Expressed as a Moment M_f (ft-lbf)
for Single Patty Adhesive Set Systems**

Tile Profile	Tile Application	Minimum Attachment Resistance
Santa Ana Mission Tile - Castilla Pan / Antigua Cap	3M™ 2-Component Foam Roof Tile Adhesive AH-160	142.44 ⁵

4 See manufactures component approval for installation requirements.

5 Santa Ana Mission Pan installed with a 2" wide x 10" long paddy (approximately 34 grams).
Santa Ana Antigua Cap installed with a 1" wide x 10" long paddy (approximately 17 grams) on each edge of the tile.

Table 5(C): Attachment Resistance Expressed as a Moment M_f (ft-lbf) for Single Patty Adhesive Set Systems		
Tile Profile	Tile Application	Minimum Attachment Resistance
Santa Ana Mission Tile - Toledo Pan / Antigua Cap	3M™ 2-Component Foam Roof Tile Adhesive AH-160	101 ⁷
6 See manufactures component approval for installation requirements.		
7 Santa Ana Mission Pan installed with a 2" wide x 10" long paddy (approximately 34 grams). Santa Ana Antigua Cap installed with a 1" wide x 10" long paddy (approximately 17 grams) on each edge of the tile.		

Table 7: Attachment Resistance Expressed as a Moment - M_f (ft-lbf) for Mortar Set Systems		
Tile Profile	Tile Application	Minimum Attachment Resistance
Santa Ana Mission Tile – Toledo, Castilla, and Marbella Roof Tile only.	Mortar Set	24.5

5. LABELING

5.1 All tiles shall bear the imprint or identifiable marking of the manufacturer's name or logo as detailed below, or following statement: "Miami-Dade County Product Control Approved".

a. Toledo, Castilla, Marbella

Santa Ana

MASTERPIECE BUILDING PRODUCTS, LLC'S, SANTA ANA MISSION TILE – TOLEDO, CASTILLA & MARBELLA (CUCUTA, NORTE DE SANTANDER, COLOMBIA PLANT)
LOCATED UNDERNEATH TILE CONTINUOUSLY ALONG THE CENTER

b. Santa Ana Antigua Tile

Santa Ana

MASTERPIECE BUILDING PRODUCTS LLC, SANTA ANA MISSION TILE - ANTIGUA
(CUCUTA, NORTE DE SANTANDER, COLOMBIA PLANT)
LOCATED ACROSS THE TOPSIDE AT THE HEAD OF THE TILE



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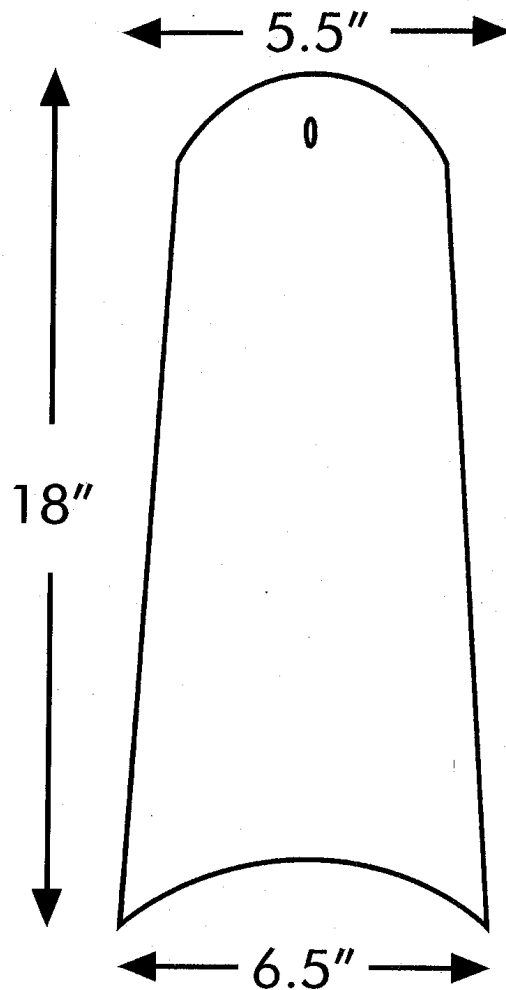
6. BUILDING PERMIT REQUIREMENTS

6.1 Application for building permit shall be accompanied by copies of the following:

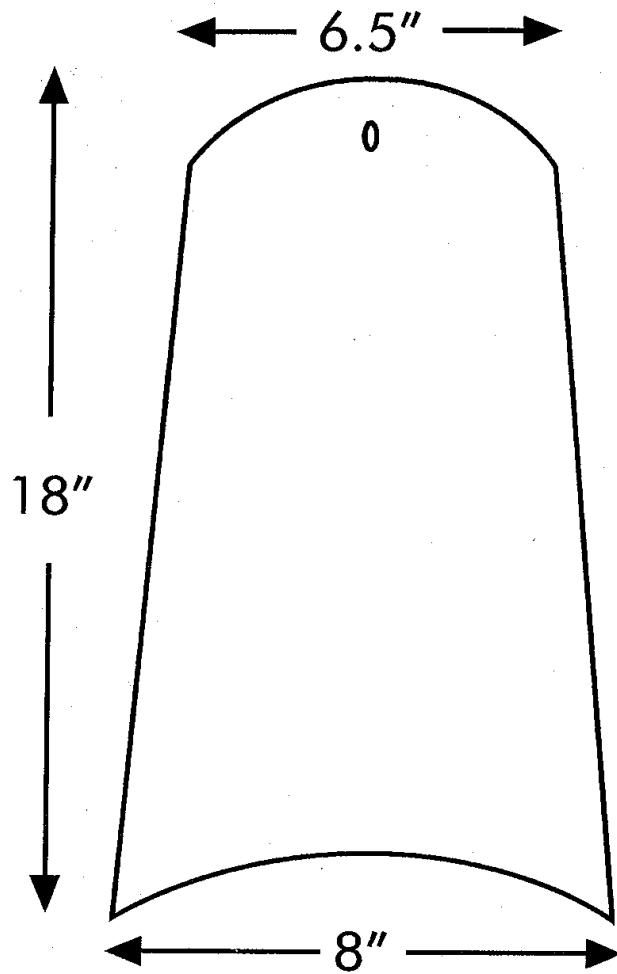
6.1.1 This Notice of Acceptance.

6.1.2 Any other documents required by the Building Official or applicable building code in order to properly evaluate the installation of this system.

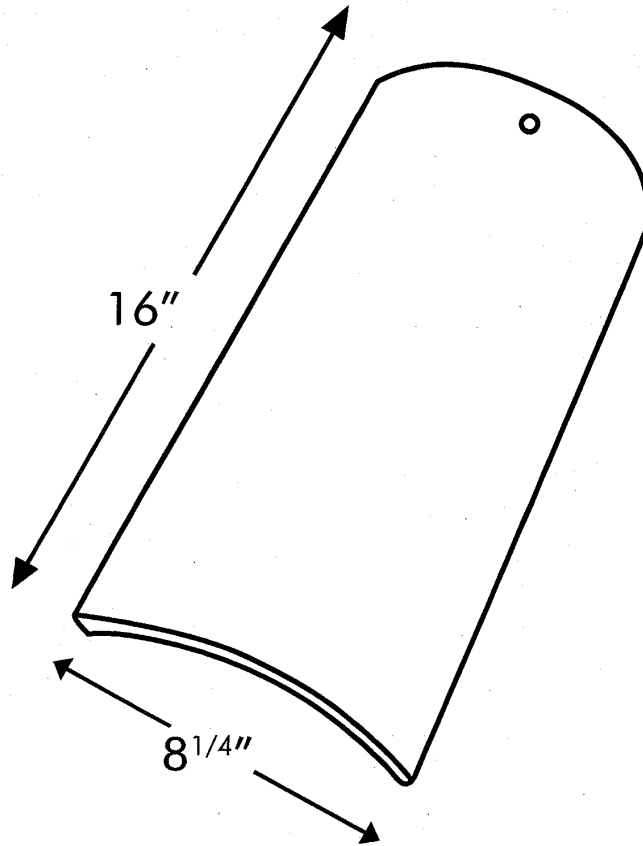
PROFILE DRAWINGS



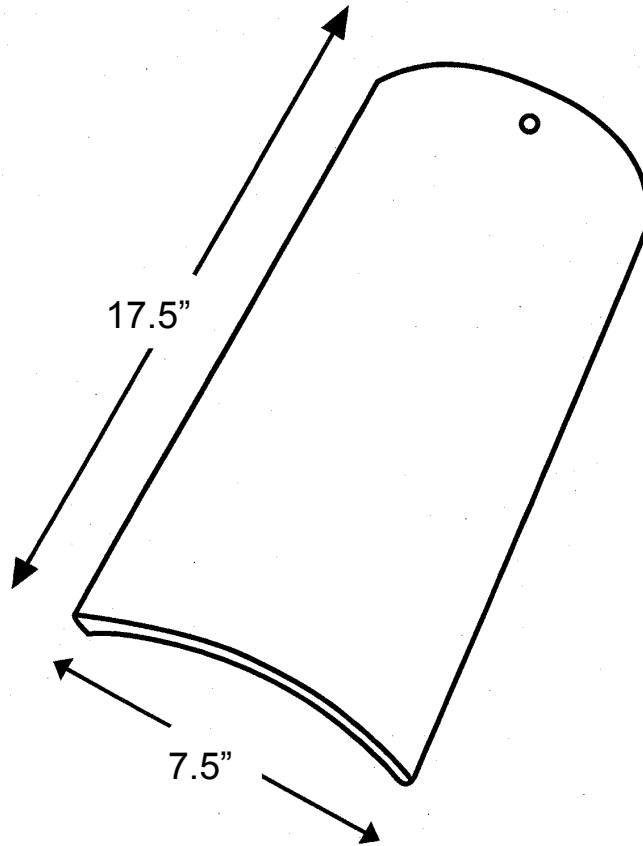
SANTA ANA MISSION TILE – TOLEDO



SANTA ANA MISSION TILE – CASTILLA



SANTA ANA MISSION TILE – MARBELLA



MASTERPIECE TILE COMPANY INC, SANTA ANA MISSION TILE – ANTIGUA

END OF THIS ACCEPTANCE